

TB CARE I

TB CARE I - TAJIKISTAN

Year 3

Annual Report

October 1, 2012 - September 30, 2013

October 30, 2013

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List of Abbreviations

CAR Central Asia Region

DOT Directly Observed Treatment
DR-TB Drug Resistant Tuberculosis
DST Drug Susceptibility Test

GBAO Gorno-Badakhshan Autonomous Region (*Oblast*)
GFATM Global Fund to Fight AIDS, Tuberculosis and Malaria

HIV Human Immunodeficiency Virus
HRD Human Resource Development
HSS Health Strengthening system

HCW Health Care Worker IC Infection Control

MDR-TB Multi-Drug Resistant Tuberculosis MIS Management Information System

M&E Monitoring and Evaluation

MOH Ministry of Health

MSF Médecins Sans Frontières
NTP National Tuberculosis Program

OR Operational Research

OTBD Oblast Tuberculosis Dispensary PIU Project Implementation Unit

PHC Primary Health Care

PMDT Programmatic Management Drug Resistant Tuberculosis

PST Patient Support Team
QHCP Quality Health Care Project
RCC Rolling Continuation Channel
R&R Reporting and Recording

SES Sanitary and Epidemiological Service

SLD Second Line Drug

SOP Standard Operational Procedure

TB Tuberculosis
TOT Training of Trainers
TWG Thematic Working Group

UNDP United Nation Development Program

USAID United States Agency for International Development

WHO World Health Organization

XDR-TB Extensively Drug Resistant Tuberculosis

Executive Summary

The USAID-supported five-year (2010-2015) TB CARE I project is implemented in the Central Asian Countries by KNCV Tuberculosis Foundation. Since the first year of the project, beginning in May 2011, the TB CARE I project has been implemented in three Central Asian countries – Kazakhstan, Kyrgyzstan and Uzbekistan. In May 2012, the TB CARE I expanded to Tajikistan. In APA3 (Year 3), TB CARE I has implemented activities in Tajikistan in the framework of the Agreement with the Ministry of Health (March 18, 2013) at the national and district levels, including five districts of Rasht area and two districts of Khatlon Region, covering a population of 470,800. TB CARE I in Tajikistan works in close collaboration with NTP, the PIU UNDP (R8), Project HOPE (RCC/R3), USAID Quality Health Care Project, Caritas Luxembourg, MSF and local partners in TB control in Tajikistan. In APA3, \$1,500,000 was obligated to support TB CARE I program in Tajikistan. In year 3, the TB CARE I program worked in six technical areas: Universal Access, Laboratory, TB-IC, PMDT, HSS and M&E. Below is the summary of major achievements of TB CARE I in Tajikistan in the reporting period by technical areas.

Universal Access:

Developed by the TWG with TA from TB CARE I consultants, the "Protocol on Strengthening of TB/MDR-TB Patients' Outpatient Care and Provision of Psychosocial Support of Patients in TB CARE I Project Sites" was agreed upon with the members of the TWG and approved by the NTP (Order #12, July 15, 2013). The protocol includes administration of care, DOT provision, and provision of psychosocial support, drug management and involvement of local government (Hukumats). Medical staff responsible for implementation of outpatient care in pilot districts (Dangara, Temurmalik and Rasht) was trained in the use of the protocol, and implementation of the model was started in two pilot districts (Dangara and Temurmalik).

Laboratory:

Developed by the TWG with TA from TB CARE I, the National Strategy on Implementation of GeneXpert MTB/RIF was approved by NTP (Order #14, February 20, 2013). Diagnostic algorithms and clinical protocols for GeneXpert MTB/RIF that were developed with technical assistance of TB CARE I are now being adhered to in the country. The biggest achievement of the project is the significant increase of detection of TB and MDR-TB cases in TB CARE I pilots. From January to the end of September 2013 we observe the increase of TB detection in Tajikabad by 84%, Temurmalik-60%, Nurabad – 23%, Rasht -17%. Overall, detection of MDR TB cases increased by 2.5 times. That was achieved by the introduction of GeneXpert MTB/RIF testing, strengthening of the sample transportation system, training TB and PHC providers on rapid diagnostic technology and sample transportation protocol.

Infection Control:

 With the support of TB CARE I, introduction of TB-IC measures started in the pilot TB health facilities. Developed TB-IC plans for seven TB facilities in pilot sites were approved by chief doctors in each respective facility.

PMDT:

- As part of the expansion of the PMDT program, TB CARE I began working in the Rasht area. TB CARE I installed a GeneXpert machine in Rasht TB Center in February 2013, and launched a comprehensive PMDT program in the region. Out of 17 MDR-TB patients identified by the GeneXpert MTB RIF from Rasht area, 15 (88%) patients have already been enrolled into treatment with second-line drugs procured by USAID.

Introduction

In Tajikistan, TB CARE I is implemented by KNCV Tuberculosis Foundation based in Dushanbe, Tajikistan. Activities focused on interventions at the national and district levels (two districts of Khatlon oblast (Dangara, Temurmalik) and five districts of Rasht area (Rasht, Nurobod, Tojikobod, Jirgital and Tavildara). Ongoing interventions included the implementation of pilot PMDT programs, support for the effective implementation of GeneXpert technology countrywide, strengthening TB-IC at the facility level and facilitating the shift from hospital based to outpatient care. In APA3, \$1,500,000 was obligated to support the TB CARE I program in Tajikistan.

In Year 3, TB CARE I worked in the following technical areas:

Universal Access:

In **Universal Access**, TB CARE I focused on vulnerable groups such as children with TB. Within this component, TB CARE I also provided on-demand technical support to program implementers to facilitate a shift to ambulatory care in TB CARE I project pilot sites (Dangara, Temurmalik and Rasht area) by development and stage-by-stage pilot implementation of the Protocol on Strengthening TB/MDR-TB Patients' Outpatient Care and Provision of Psychosocial Support of Patients in TB CARE I Project Sites.

Laboratory:

In **Laboratory**, TB CARE I provided the lead technical assistance to the introduction of GeneXpert technology in the country. TB CARE I focused on improving laboratory and clinical management procedures to ensure efficient and effective use of Gene XpertMTB/RIF technology in TB CARE I project sites. Based on the adopted strategy, TB CARE I facilitated the development of a Protocol for Sample Transportation in seven pilot sites, training personnel from TB and PHC facilities and conducting supervisory monitoring visits to GeneXpert sites.

Infection Control:

In **Infection Control**, TB CARE I supported NTP in the development of IC plans for TB facilities in pilot sites (Khatlon Oblast TB Hospital, district TB hospital (Temurmalik), TB departments in rayon central hospitals, rayon TB centers). Health providers responsible for IC in the national, regional and facility levels were trained on implementation of the national TB-IC plan and guideline, as well as in the use of TB-IC measurement equipment.

PMDT:

In **PMDT**, TB CARE I supported the implementation of PMDT program in seven TB CARE I pilots that included trainings and regular workshops for TB/PHC clinicians, nurses and managers, quarterly supervisory visits to provide mentoring, on-the-job trainings and review progress made in the implementation of the program. TB CARE I also provided technical support on the development and implementation of clinical algorithms for the treatment of side effects for second line anti-TB drugs and providing trainings on these algorithms for TB clinicians from the National, regional and district levels.

HSS.

In **HSS**, TB CARE I supported training of community activists, religious leaders and volunteers from project pilot sites with a focus on preparedness to help TB and PHC staff provide TB care and treatment in ambulatory care settings. In APA3, within this component, TB CARE I sponsored participation of NTP specialists in international trainings, courses and workshops.

Operational Research and M&E:

In **M&E**, TB CARE I supported revision of definitions and recording and reporting forms following the surveillance assessment, as well as strengthening capacities of NTP professionals to conduct operational research.

Core Indicators

TB CARE I has seven core indicators that the program is working to improve across all countries. Table 1 summarizes the core indicator results across the life of the project for TB CARE I - Tajikistan. Results for 2013 will be reported on next year.

Table 1: TB CARE I Core Indicator Results for Tajikistan

Table 1. 1b CARE I core indicator Results for Tajikistan			
Indicators	2010	2011	2012
	(Baseline)	(Year 1)	(Year 2)
C1. Number of cases notified (all forms)	7691	7609	6929
C2. Number of cases notified (new confirmed)	5959	5935	5484
C3. Case detection rate (all forms)	44	47	47
C4. Number (and percent) of TB cases among HCWs*	n/a	n/a	n/a
C5. Treatment success rate of confirmed cases	81	80	84.2
C6. Number of MDR cases diagnosed	333	598	780
C7. Number of MDR cases put on treatment	245	380	536

^{*}Data are not available, as the NTP does not collect this data.

TB CARE I started in August 2012. Data presented in this table are the data for 2012.

Summary of Project Indicators and Results

Table 2: TB CARE I – Tajikistan Year 3 Indicators and Results

	cted Outcomes	Outcome	Indicators and Result	Baseline or	Target	Result	Comments
•		Indicators	Definition	Y2 (timeframe)	Y3	Y3	
Unive	ersal Access						
1.2	Increased quality of TB services delivered among all care providers (Supply)	1.2.5 Childhood TB approach implemented	Description: This indicator measures the level to which childhood TB is addressed in the NTP's strategy. Indicator value: 0=Childhood TB is not mentioned in the NTP's strategy 1= Childhood TB is mentioned in the strategic plan but no activities are implemented on Childhood TB 2=Childhood TB activities are being piloted or are implemented in select sites 3=Childhood TB is an integral part of the NTP strategic plan and regular activities	2	3	3	In APA3 it was planned to develop childhood TB protocol and train pediatricians, TB and PHC doctors on developed protocol. However, this activity was canceled due to the fact that the childhood TB protocol was recently developed by MSF, and NTP made a decision to incorporate this protocol into NTP Childhood TB Guideline. TB CARE I facilitated childhood TB trainings for TB clinicians and family physicians from national and oblast levels.
		1.2.11 Protocol on Outpatient Care developed and implemented in pilots	Description: Protocol on Outpatient Care developed and implemented in pilots Indicator Value: Yes/No	No	Yes	Yes	TB CARE I supported development of the "Protocol on Strengthening TB/MDR-TB Patients' Outpatient Care and Provision of Psychosocial Support of Patients in TB CARE I Project Sites". The

		1.2.12 Number of TB/MDR-TB patients put on outpatient care in TB CARE pilots	Description: Number of TB/MDR- TB patients put on outpatient care Indicator Value: Percent Level: TB CARE pilots	0	320 (66%)	274 (58% out of 472 TB and MDR-TB patients registered in TB CARE I pilots in APA3)	protocol was developed and approved by NTP (Order #12, July 15, 2013) Temurmalik – 47 (47 TB/0 MDR-TB), Dangara – 79 (72 TB/7 MDR/TB), Rasht – 35 (35 TB/0 MDR-TB), Nurobod – 20 (20 TB/0 MDR-TB), Tavildara – 9 (9 TB/0 MDR-TB), Tojikobod -56 (54 TB/2 MDR-TB) and Jirgital -28 (28 TB/0 MDR-TB). Due to the fact that implementation of outpatient care started at the end of July 2013 (after approval of Protocol on Outpatient Care and PSS by NTP) the target was not reached. Implementation activities will be done in APA4.
opti new app for con of T inco of tl app nati	imal use of vorcaches laboratory firmation TB and proporation chese proaches in ional ategic poratory	2.3.1 Diagnostic sites offering advanced technologies for TB or drug-resistant TB	Description: Number of diagnostic sites in which GeneXpert MTB/RIF, HAIN MTBDRplus or liquid culture /DST are implemented and routinely used for diagnosis, stratified by testing type	3	5	5	1 site (Rasht district) has 1 functional Xpert machine, installed with TB CARE I support. This machine supports 5 pilot sites (Rasht, Tojikobod, Nurobod, Tavildara and Jirgital) in Rasht area.
Infection							

3.1	Increased TB-IC Political Commitment	3.1.1 Revision of Normative documents on TB- IC	Description: Normative documents on TB-IC have been revised Indicator Value: 0 = Normative documents are not revised 1 = Normative documents are revised but changes were not approved by MoH 2 = Normative documents are revised, changes were approved by MoH 3 = Revised TB-IC normative documents are implemented	0	2	1	TB CARE I supported NTP in reviewing the existing national TB-IC normative documents. A report was prepared and the results from the review were presented in a TWG meeting. In spite of this fact, NTP did not initiate the process of the revision of the existing TB-IC normative documents.
3.2	Scaled-up implementatio n of TB-IC strategies	3.2.2 Facilities implementing TB-IC measures with TB CARE support	Description: Facilities that received support for implementation of TB-IC measures through TB CARE out of the numbers of facilities planned to receive support for TB-IC implementation	0	7	7	TB-IC plans for seven TB facilities in TB CARE I pilot sites (district TB centers in Dangara, Temurmalik and Rasht, Khatlon Oblast TB Hospital Zargar, district TB hospital in Temurmalik, TB departments in Rayon central hospitals in Dangara and Rasht) were developed and approved by head doctors of each respective facility. Personnel responsible for TB-IC activities from seven TB health facilities were trained on TB-IC; regular

		2220000	Description		15	12 (000)	monitoring visits were conducted during the project year.
3.3	Strengthened TB-IC Monitoring & Measurement	3.3.2 Regular monitoring visits from central level conducted	Description: Number of facilities in which regular TB-IC monitoring visits were conducted using IC measurement equipment	0	15	12 (80% of target)	12 health facilities were visited during the year: - 3 District TB centers in Dangara, Temurmalik, Rasht; - 1 city TB center in Kurgan-tube, - 3 TB hospitals - Khatlon oblast TB hospital Zargar, new TB hospital in Kurgan-tube, district TB hospital (Temurmalik), - 2 TB departments of Rayon central hospitals in Dangara, Rasht), - 2 Regional TB centers (Kulyab and Kurgan-tube) - 1 Republican TB hospital. To ensure consistent quality of TB CARE I technical assistance the numbers of health facilities to be visited in APA3 were reduced to 12. The rest TB health facilities will be visited within APA4.
3.4	Improved TB- IC human resources	3.4.1 Personnel trained on TB-IC Indicator Value: Number Level: TB CARE pilots	Description: Number of medical specialists trained on TB-IC in pilots based on new Guideline on TB-IC	0	60	64 (55 males/9 females)	60 medical specialists were trained on TB-IC in pilots based on new guideline on TB-IC. Additionally, 4 specialists (3 SES representatives and one engineer) were trained in advanced TB-IC courses in Russia.

4.1	Improved treatment success of MDR-TB	4.1.5 Personal trained on PMDT	Description: Number of medical specialists trained on PMDT in pilots	44	228	254 (188 males/66 females)	254 medical specialists (TB clinicians/nurses, PHC doctors/nurses, TB and PHC managers) were trained on PMDT in pilots
		4.1.5 Regular monitoring visits from central level conducted	Description: Number of facilities in which regularly PMDT monitoring visits conducted	0	12	12	12 health facilities were visited during the year: - 7 District TB centers in Dangara, Temurmalik, Rasht, Nurobod, Tojikobod, Jirgital, Tavildara; - 2 TB hospitals - Khatlon Oblast TB hospital Zargar, district TB hospital (Temurmalik), - 2 TB departments of Rayon central hospitals in Dangara, Rasht), - One Republican TB hospital.
		4.1.3 MDR-TB patients who have completed the full course of MDR-TB treatment regimen and have a negative sputum culture	Description: MDR- TB patients who have completed the full course of MDR- TB treatment regimen and have a negative sputum culture	71	73	n/a	In TB CARE I pilots Dangara and Temurmalik, enrollment of MDR-TB patients in treatment was started in July 2012. In five districts of Rasht area, this process became possible in August 2013 after arrival of SLDs in July 2013. Now all enrolled patients are still under the treatment and have not completed the full course of MDR-TB treatment.
TB/H	IV						
Healt	 h System Stren	gthening					
6.2	TB control components	6.2.1 TB CARE- supported	Description: This indicator measures	0	Total - 54	Total – 28 (52% of	The total number of conducted visits is 28.

	(drug supply and management, laboratories, community care, HRD and M&E) form an integral part of national plans, strategies and service delivery	supervisory visits conducted	TB CARE support of NTP's supervisory activities by comparing the number of planned visits in the TB CARE workplan to what is actually conducted		Xpert - 12 TB-IC - 9 PMDT -12 Outpatient care -12 Psychosocia I support -9	xpert - 9 (75%) TB-IC - 9 (100%) PMDT -6 (50%) Outpatient care -1 (9%) Psychosocial support -3 (33%)	Some visits were combined (visits on PMDT with Xpert, monitoring on outpatient care with visits on psychosocial support). Monitoring visits on outpatient care and psychosocial support were postponed due to late approval of the protocol.
		6.2.2 People trained using TB CARE funds	Description: Health care workers at all levels trained on any area of TB control using TB CARE funds	0	Total 1010 (Childhood TB -75, GeneXpert - 195, IC -60, PMDT -228, Psychosocia I support - 105, Outpatient care -265, Internation al and Regional courses - 17, Surveillance -30, OR - 15)	Total 1008 (706 males/302 females), (99.8% of target)	Health care workers at all levels trained using TB CARE I funds: Universal Access – 215 (132 males/83 females); Laboratory – 197 (143 males/54 females); TB-IC – 64 (55 males/9 females); PMDT – 254 (188 males/66 females); HSS – 241 (172 males/69 females); M&E – 37 (16 males/21 females)
7.1	Strengthened	7.1.2 Recording	Description: NTP	2	3	3	In order to follow up the
	TB surveillance	and reporting system (paper- based) for routine	must have recording and reporting system				request from NTP to facilitate the process of revision of definitions and

	1	T	I	1	
surveillance exists	for routine				R&R forms in accordance
at national, oblast	surveillance at				with WHO
and district levels,	national, oblast and				recommendations, TB CARE
revised according	district levels. The				I conducted four TWG
to latest WHO	system should be				meetings in August-
recommendations	revised according to				September 2013. The draft
and approved by	latest WHO				of the instruction on data
MoH	recommendations				collection based on revised
	and approved by				R&R forms will be finalized
	MoH				and submitted to NTP in
	Score based on				November, 2013
	below:				
	1. Country does not				
	have recording and				
	reporting system				
	for routine				
	surveillance at				
	national, oblast and				
	district levels				
	2. Country has				
	Recording and				
	reporting system for routine				
	surveillance at				
	national, oblast and				
	district levels but it				
	is not revised to				
	meet latest WHO				
	recommendations				
	3. Country has				
	recording and				
	reporting system				
	for routine				
	surveillance at				
	national, oblast and				
	district levels,				
	revised according to				
	latest WHO				
	recommendations				
	and approved by				
	MoH				

7.3	Improved capacity of NTPs to perform operational research	7.3.3 NTP staff trained on conducting operational research Description: Number of NTP staff trained on conducting operational research Indicator Value: Number Level: National Source: NTP and TB CARE Means of Verification: Training reports The activities in this section will be measured through 6.2.2	Description: Number of NTP staff trained on conducting operational research Indicator Value: Number Level: National Source: NTP and TB CARE Means of Verification: Training reports The activities in this section will be measured through 6.2.2	0	15	15 (3 males/12 females)	15 representatives of NTP were trained on conducting operational research during the workshop on the development of the OR agenda organized by TB CARE I
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Universal Access

In **Universal Access**, TB CARE I focused on vulnerable groups such as children with TB. Within this technical area, introduction and application of recent guidelines on TB childhood and development of childhood TB protocol was implemented in accordance with the latest WHO recommendations (Rapid Advice, Treatment of TB in Children, WHO, 2010). Taking into account the recently developed MSF Protocol on Childhood TB in the National Guideline on Childhood TB, TB CARE I facilitated training of TB clinicians, pediatricians and family physicians from national and oblast levels in the revised Guideline on Childhood TB based on the latest WHO recommendations.

Within this technical area, TB CARE I also provided on-demand technical support to program implementers to facilitate a shift to ambulatory care in TB CARE I project pilot sites (Dangara, Temurmalik and Rasht area) by development and stage-by-stage pilot implementation of the Protocol on Strengthening TB/MDR-TB Patients' Outpatient Care and Provision of Psychosocial Support of Patients in TB CARE I Project Sites.

Key Results

Childhood TB

- Training curriculum on childhood TB was developed based on the latest WHO recommendations and latest National Guideline on Childhood TB.
- TB CARE I provided several trainings on childhood TB for specialists from national and oblast levels (TB doctors, pediatricians and family physicians).
- Three NTP TB specialists were trained on childhood TB at the international advanced course in Riga, Latvia (September 28-October 3, 2013).

Outpatient Care

- TB CARE I provided technical support in the development and adoption of the "Protocol on Strengthening Outpatient Care and Provision of Psychosocial Support of Patients in TB CARE I Project Sites" to enhance outpatient treatment and psychosocial support of TB patients in TB CARE I pilot districts. The protocol was developed jointly with TWG members, representatives of the local municipal authorities as well as TB patients from TB CARE I pilot sites. The protocol is based on current national guidelines for TB control in Tajikistan, and outlines the approaches for the administration of outpatient treatment of TB patients based on the capacities of district TB facilities, primary health care and local government. The protocol was developed jointly with the NTP TWG and approved by the NTP (Order #12, July 15, 2013). In addition to the protocol, the monitoring tool for the patient support system as well as TB patient psycho-social profile card were developed to be used for monitoring PSS support during the visits in TB CARE I pilots.
- TB CARE I project provided technical assistance on implementation of outpatient TB/MDR-TB care and establishing psychosocial support of the patients in two TB CARE I pilot areas (Dangara and Temurmalik) by conducting a series of trainings on pilot implementation of outpatient care, interpersonal communication skills, DOT provision and stigma reduction for health providers, volunteers and community leaders.
- 274 (58%) out of 472 registered TB/MDR-TB patients were put on outpatient care in TB CARE I pilots.
- TB CARE I supported regular supervision visits, conducting working meetings with local government (Hukumats) and village authorities (Jamoats), TB and PHC services to discuss creating a sustainable patient support model as part of the outpatient model of care. As a result, the Hukumats of Dangara and Temurmalik issued a resolution on providing a quarterly social package to TB /MDR-TB patients at the level of Jamoats as well as developed a detailed plan on implementation of the outpatient care in Dangara and Temurmalik districts.
- TB CARE I supported the participation of three TB center directors from pilot districts (Dangara, Temurmalik and Rasht) in a study tour on the patient support system in Kazakhstan.

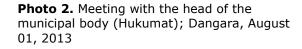
Challenges

- 1. Due to the fact that "Protocol on Strengthening TB/MDR-TB Patients' Outpatient Care and Provision of Psychosocial Support of Patients in TB CARE I Project Sites" was approved by NTP later than was expected, the implementation of the ambulatory care model was started in Dangara and Temurmalik in August 2013. To ensure quality of TB CARE I technical assistance the introduction of the model in the rest TB CARE I pilots (5 districts of Rasht area) was postponed and will be done within APA4.
- The activity scheduled for APA3 under this technical area (Development of Childhood TB
 protocol) was cancelled at the request of NTP, due to that fact that the childhood TB protocol
 was recently developed by MSF and was incorporated into National Guideline on TB Childhood.
- 3. The project launch was planned for APA3 after signing the agreement between MoH and KNCV Branch office in Tajikistan. Due to that fact that the agreement the activity was cancelled.

Next Steps

- 1. To establish the patient support team (PST) at NTP level. This team will provide effective psychological support to TB/MDR-TB patients from TB CARE I pilots during supportive supervision visits, provide on-the-job training for TB/PHC providers on implementation of ambulatory care model.
- 2. To establish subgroup on outpatient care and psychosocial support at the national level under MDR-TB TWG with participation of key NTP specialists, decision-making authorities and specialists from project sites. Subgroup members will be actively involved in the implementation of the protocol of outpatient care and PSS in the TB CARE I pilot sites by advocating for social support at the national and regional levels, and involving local municipal authorities (Khukumats, Jamoats, Village committees) as well as community leaders.
- 3. To continue technical assistance to local TB and PHC services to implement the Protocol of Outpatient Care and Psychosocial Support through Monitoring and Participation in Coordination meeting at TB CARE I district levels.
- 4. Actively involve local community and religious leaders in TB control and de-stigmatization of TB patients in TB CARE I pilots.
- 5. To continue technical support on childhood TB by conducting training of pediatricians and PHC physicians from TB CARE I pilot districts.

Photo 1. Supportive supervision visits on psychosocial patient support (meeting with community leaders); Temurmalik, August 26, 2013







Laboratories

In **Laboratories**, TB CARE I project provides technical assistance for the introduction of GeneXpert technology in Tajikistan and development of the national strategy for the implementation of GeneXpert MTB/RIF in the country. Since 2011, five projects (PIU GFATM/UNDP, RCC GFATM/Project HOPE, EXPAND TB, MSF and TB CARE I) are involved in Gene Xpert implementation in Tajikistan. In total, 11 GeneXpert machines are used in the country.

TB CARE I project is focused on building local capacity for strong coordination and management of the GeneXpert implementation in the country. Laboratory specialists and TB clinicians trained to be a trainer on practical use of Xpert MTB/RIF were actively used by other projects for trainings in their Xpert sites. At the district level, TB CARE I supported installation and operation of GeneXpert MTB/RIF machine in the project pilot site (Rasht district) that was crucial for detecting MDR-TB cases in the Rasht area and scaling up MDR-TB treatment in the pilots.

Key Results

- Significantly increased case detection of TB and MDR-TB in TB CARE I pilots by the introduction of GeneXpert MTB/RIF testing and strengthening of the sample transportation system (Table 1). From January to the end of September 2013 TB detection in Tajikabad was increased by 84%, in Temurmalik by 60%, in Nurabad by 23%. Overall, detection of MDR TB cases increased by 2,5 times. That was achieved by the introduction of GeneXpert MTB/RIF testing in Rasht area, strengthening of the sample transportation system, training TB and PHC providers on rapid diagnostic technology and sample transportation protocol. All detected TB and MDR TB patients were enrolled in treatment with FLDs and SLDs.
- Developed by the TWG and TB CARE I, the National Strategy on Implementation of GeneXpert MTB/RIF was approved by NTP (Order #14, February 20, 2013).
- The TB CARE I project introduced GeneXpert MTB/RIF testing in Rasht in February, 2013. Installed GeneXpert machine supports 5 pilot sites in Rasht area (Rasht, Nurabad, Jirgital, Tajikabad and Tavildara). The site started testing patients from February 26, 2013. Among 250 presumptive TB cases tested with Xpert MTB/RIF the MTB positivity rate was 14% (36/250) and Rifampicine resistance rate was 22.2% (8/36). In 37 presumptive MDR-TB cases tested with XpertMTB/RIF, the MTB positivity rate was 35% (13/37) and Rifampicine resistance rate was 69% (9/13).
- TB CARE I facilitated TOT training on using GeneXpert MTB/RIF. As a result, a pool of trainers (18 specialists) on GeneXpert MTB/RIF was developed at the national level.
- To ensure a sufficient workload for GeneXpert machines, as well as to improve access to GeneXpert MTB/RIF testing, the project developed a sample transportation protocol for Dangara, Temurmalik and Rasht area. The developed protocol includes the responsibilities of district TB centers and PHC on sample transportation, the delivery schedule and sample storage conditions at each point of the sample transportation chain. This protocol also contains a detailed plan of transportation activities for each of the seven pilot districts.
- To ensure appropriate sample storage conditions, refrigerators and air-conditioners were procured by TB CARE I and distributed to 7 TB centers and 37 primary health care facilities of project pilots where sputum collection points were organized.
- Regular supportive supervision and monitoring visits (9 out of 12) were conducted with onthe-job trainings. Most recommendations made during the visits were implemented.

Table 1. Case detection of TB and MDR-TB in TB CARE I pilots (9 months 2012/9 months 2013)

TB CARE I Pilot Sites	Notification	of TB Cases (All Forms)	Notification of MDR-TB Cases			
	TB cases registered in 2012 (9 months, Jan-Sept)	TB cases registered in 2013 (9 months, Jan-Sept)	Rate of increase (%)	MDR-TB cases registered in 2012 (9 months, Jan-Sept)	MDR-TB cases registered in 2013 (9 months, Jan-Sept)	Rate of increase (%)	
Rasht	52	59	13%	0	11		
Tojikobod	31	57	84%	0	6		
Nurobod	30	37	23%	0	3		
Jirgital	39	32	-	0	7		
Tavildara	10	5	-	0	0		
Dangara	89	83	_	6	9	50%	
Temurmalik	48	77	60%	7	10	43%	
Total	299	350	17%	13	46	254%	

Chart 1. Case detection of TB in TB CARE pilots

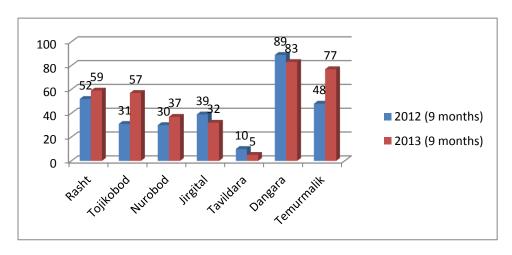
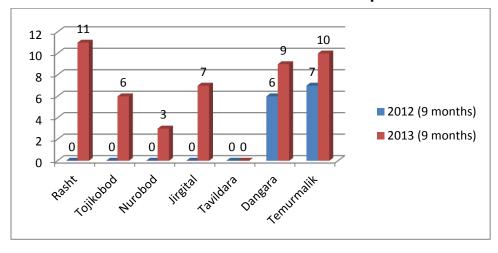


Chart 2. Case detection of MDR-TB in TB CARE I pilots



Challenges

- TB CARE I started supporting activities (monthly payment for fuel purchase) for functioning of sample transportation system from the end of July 2013. The process became possible after development of sample transportation protocol and training of relevant personnel from TB and PHC services on the process of collection and transportation of samples.
- 2. There are no standardized R&R forms on Xpert in all Xpert sites. In Year 4 TB CARE I will standardize the recording and reporting tools for GeneXpert MTB/RIF and ensure harmonization with international standards and the national requirements.
- 3. Weak coordination from the NTP level. Different organizations involved with different donor regulations, therefore complicating transportation of samples and use of cartridges. It might also result in test results delays.
- 4. There is no SOP/instruction on MIS on GeneXpert MTB/RIF, including revised R&R forms to provide guidance to laboratory specialists and clinicians on the completion of the GeneXpert MTB/RIF forms. In Year 4 TB CARE I will develop SOP/instruction on MIS to provide guidance to laboratory specialists and clinicians on the completion of the GeneXpert MTB/RIF forms.
- 5. There is no national GeneXpert MTB/RIF maintenance and troubleshooting SOP/instruction. In Year 4 with technical support of CARE I the national SOP on GeneXpert MTB/RIF maintenance and troubleshooting will be developed to ensure a standard, structured approach to the provision of maintenance for GeneXpert MTB/RIF.
- 6. There is no M&E plan for GeneXpert MTB/RIF at the national level. It is planned to develop the plan in frame of APA4 with TWG and TB CARE I support.
- Weak capacity of NTP staff on management, planning and budgeting of GeneXpert MTB/RIF supplies.
- 8. Turnover of the laboratory specialists. Due to the regulations of Anti-Corruption Agency enacted from last year they were not allowed to work over nominal monthly hour rate which resulted in the decrease of salaries for medical staff (nurses, laboratory personnel) prompting many professionals to leave their jobs. TB CARE I raised this issue in the meeting with NTP manager, who promised to take this issue up with relevant agencies and MOH.

Next Steps

- 1. To strengthen management, planning and budgeting of GeneXpert MTB/RIF supplies through training of laboratory staff and monitoring.
- 2. To develop training materials on GeneXpert MTB/RIF & SOPs (lab procedures, waste management and biosafety).
- 3. To assist the NTP in development of job description for the National Coordinator on GeneXpert MTB/RIF implementation.
- 4. To collect and analyze data of GeneXpert MTB/RIF impact on TB/MDR-TB management in TB CARE I pilots
- 5. To continue monitoring proper use of GeneXpert MTB/RIF in pilot sites.

Photo 3. Installation of an GeneXpert MTB/RIF machine; Rasht district, February 28, 2013

Photo 4. TOT on GeneXpert, Laboratory training; December 11-14, 2012





Infection Control

In **Infection Control**, TB CARE I focused on activities to strengthen the capacities of local specialists at the national, oblast and TB CARE I pilot districts levels by conducting training on TB-IC and supervision monitoring visits to TB CARE I pilots with on-the-job trainings. TB CARE I also supported preparing infection control professionals from general TB services (national and oblast levels) and SES to properly utilize IC measurement tools and equipment.

Key Results

- TB CARE I supported NTP in reviewing existing national TB-IC normative documents. A report was prepared, submitted to NTP and the results from the review of the TB-IC regulations were presented in a TWG meeting.
- The team of TB-IC national trainers was developed during TOT training facilitated by TB CARE I. This team will act as trainers in their job settings.
- Facility level TB-IC plans for seven TB facilities in TB CARE I pilots and oblast TB hospitals were developed and monitored regularly. TB facilities (district TB centers in Dangara, Temurmalik and Rasht, Khatlon Oblast TB Hospital Zargar, the district TB hospital in Temurmalik, TB departments in Rayon central hospitals in Dangara and Rasht) have been approved by chief TB-IC doctors. Personnel responsible for TB-IC activities in TB health facilities were appointed and trained.
- All planned supportive supervision and monitoring visits on TB-IC to TB CARE I pilot districts and oblast TB hospitals (Khatlon Oblast) were conducted during the project year. 12 (80% of target) health facilities were visited during the year: district TB centers (Dangara, Temurmalik and Rasht); city TB center in Kurgan-tube, three TB hospitals of Khatlon oblast, district TB hospital in Temurmalik, two TB departments of Rayon central hospitals in Dangara and Rasht, two Regional TB centers and Republican clinical TB hospital Macheton.
- TB-IC measurement equipment was procured and distributed to Republican TB Center, Republican clinical TB hospital Macheton, TB health facilities in TB CARE I pilots and SES. A personnel was trained on use of the equipment.
- 64 managers and health care workers from national, oblast, district levels, including TB CARE I districts and SES were trained in the implementation of the national TB-IC plan and IC guideline, using of TB-IC equipment.
- Three types of IC booklets/posters were developed jointly with TWG members, including cough hygiene (for general population), the proper use of respirators (for medical and laboratory staff) and using TB-IC measurement equipment in health facilities (for medical staff). Additionally, TB CARE I supported development and printing of copies of three SOPs (SOP for fit test; SOP for TB-IC measurement of UVGI and natural ventilation and SOP for using respirators).
- Three Oblast level SES representatives (Heads of Oblast SES departments) were trained on TB-IC at the international training "Nosocomial TB Transmission Risk Reduction" in Russia. Training of SES staff will help to strengthen the monitoring of the TB-IC with the use of modern approaches and monitoring tools.
- Engineer from the Republican TB Hospital was trained with TB CARE I support at the international training on "Engineering Aspects of Nosocomial TB Transmission Risk Reduction" in Russia.

Challenges

- 1. There are no internal TB-IC instructions in TB health facilities.
- Lack of targeted training materials for specific groups of health care workers involved in providing TB services (TB/PHC physicians, nurses, laboratory specialists).
- 3. Weak knowledge of health providers (nurses, PHC physicians and laboratory personnel) on TB-IC.
- 4. There are no instructions (SOP) on patient triage and separation, SOP for TB-IC measures in ambulatory care settings.
- 5. Weak involvement of SES specialists in the use of TB-IC monitoring tools, TB-IC assessment and monitoring activities.

Next Steps

- 1. To develop targeted training materials for specific groups of health care workers involved in providing TB services (TB/PHC physicians, nurses and laboratory specialists).
- 2. To train TB-IC health providers (nurses, PHC physicians and laboratory personnel) from TB CARE I districts.
- 3. To provide technical assistance to TB-IC responsible persons of TB CARE I pilot sites in developing internal TB-IC instructions.
- 4. To follow up on implementation of TB-IC activity plans in TB CARE I pilot districts.
- 5. To implement a TB-IC risk assessment in the new TB inpatient departments of Kurgan-Tube Oblast TB Center and new TB CARE I pilots.
- 6. To develop instruction (SOP) on patient triage and separation to improve patient triage and separation practices in TB CARE I pilots.
- 7. To develop and introduce SOP for TB-IC measures in ambulatory care settings.
- 8. To train SES specialists in the use of TB-IC monitoring tools, modern TB-IC assessment and monitoring approaches.
- 9. To continue ongoing supervision visits and on-the-job training for TB-IC to support NTP in the implementation of modern IC standards.

Photo 5. Training on the implementation of the national TB-IC plan and guidelines; Dushanbe, April 10-12, 2013

Photo 6. Supportive supervision visit; TB center, Dangara district, June 17, 2013





Photo 7. TB-IC materials developed by TB CARE I; SOP for fit test, SOP for TB-IC measurement of UVGI and natural ventilation and SOP on using respirators

Photo 8. TB-IC materials developed by TB CARE I; Poster on using TB-IC measurement equipment in health facilities (for medical staff)





Photo 9. TB-IC materials developed by TB CARE I: Poster on cough hygiene (for general population)



Photo 10. TB-IC materials developed by TB CARE I: Poster on the proper use of respirators (for medical and laboratory staff)



Programmatic Management of Drug Resistant TB (PMDT)

In **PMDT**, TB CARE I supported the implementation of PMDT program in seven TB CARE I pilots (two districts of Khatlon Region and five districts of Rasht area) that included trainings and regular workshops for TB/PHC clinicians, nurses and managers, quarterly supervisory visits to provide mentoring, on-the-job trainings and review the progress made in the implementation of the program. TB CARE I also provided technical support on the development and implementation of clinical algorithms for the treatment of side effects for second line anti-TB drugs and provide trainings on these algorithms for TB clinicians from the national, regional and district levels.

Key Results

- Programmatic management of the drug resistant TB program was introduced in the seven TB CARE I pilot districts (Dangara and Temurmalik from July 2012, Rasht area from November 2012).
- From February to the end to September 2013, 17 MDR-TB patients (8 new TB suspects and 9 retreatment cases) from Rasht area were identified by the GeneXpert MTB/RIF testing (last year no one MDR-TB patient was detected from the area). Out of all detected patients, 15 have already been enrolled in treatment with SLDs procured by USAID. 2 MDR-TB patients, detected in March, were put on the waiting list for the SLD treatment. But they died before SLDs became available in the country in July 2013.
- 254 TB specialists, PHC doctors, managers and nurses of TB and PHC services from TB CARE I pilot districts were trained on PMDT.
- TB and PHC nurses were trained in management of second line drugs, including reporting and recording forms, storage conditions, SLDs ordering requirements and distribution to PHC.

- With TB CARE support, the draft of the instruction on clinical algorithms for the treatment of side effects of SLDs was developed by an international consultant, Kai Blondal. The draft was discussed with TWG members, with finalization of the draft under process. The finalized instruction will be submitted to NTP/MOH for approval in November 2013.
- TB clinicians from national (Republican TB center and Republican TB hospital Macheton), regional (Oblast TB Centers and TB hospitals in Khatlon, Soghd, GBAO), city and district levels were trained on management of side effects of SLDs.
- The national monitoring system was improved by supporting the NTP group in the preparation of the TB/MDR-TB monitoring and supervision tool for the NTP team at the periphery level. The tool has been developed and designed, taking into account the National Guideline for the Programmatic Management of Drug-Resistant Tuberculosis, as well as the latest WHO recommendations.
- TB CARE I conducted 6 (50% of target) supportive monitoring visits to 12 (100% of target) health facilities planned to be supervised during the year: district TB centers (Dangara, Temurmalik, Rasht, Nurobod, Tojikobod, Jirgital, and Tavildara), TB hospitals (Khatlon Oblast TB hospital, district TB hospital in Temurmalik), TB departments of district central hospitals (Dangara, Rasht) and Republican TB hospital Macheton.
- Three NTP TB specialists were trained on the Clinical Management of Drug-Resistant TB in the International Advanced Course for WHO Europe region countries in Riga, Latvia (May 13-24, 2013)
- Six NTP doctors received support from TB CARE I to take a three-month MDR-TB online course facilitated by the National TB Institute of the Russian Academy of Science.

Challenges

1. Due to the absence of SLDs enrollment, treatment of detected MDR-TB patients in Rash area and two districts of Khatlon Oblast (Dangara and Temurmalik) was postponed until mid-July, when the shipment of SLDs (procured by USAID and GF R8/UNDP project) arrived in Tajikistan.

Next Steps

- 1. To develop PMDT module for different target groups involved in providing TB services (TB doctors, PHC physicians, TB and PHC nurses, TB and PHC managers).
- 2. To train representatives of NTP (national and oblast levels) on comprehensive programmatic management of DR TB based on developed PMDT module.
- 3. To conduct supervisory visits in TB CARE I pilots to provide mentoring, on-the-job training and review of clinical practice in pilots.

Photo 11. Training on TB and MDR-TB M&E; Dushanbe, July 11-13, 2013



Photo 12. National PMDT Workshop; Dushanbe, July 09-10, 2013



Success Stories



CASE STUDY

Hopes Raised in Rasht

USAID improves access to multi drug resistant

to multi drug resistant tuberculosis treatment in remote areas



Jaloliddin Khaitov, a patient from Rasht

"When I was leaving Rasht for treatment in Macheton, my friends and relatives believed I would never return. Now I feel good and committed to continuing treatment for as long as it takes. I'm confident that when I return home, I will be an example for my community, that MDR TB is curable".

Jaloliddin Khaitov, a patient from Rasht

Challenge

In 2013 USAID TB CARE I started to work in the Rasht area, a consortium of five districts in the mountainous northeastern region of Tajikistan. The Rasht area is remote and hard to reach, so traditionally it has received little attention from international donors and has long sought support for its TB services. The TB notification rate for Rasht area was 62.2 per 100 000 population in 2012.

Widespread under-detection of TB/MDR-TB in Tajikistan is often a result of poor logistics at primary health care facilities and low TB service levels. Inadequate organization of sputum transportation sometimes leads to major delays in diagnosis and an inability to ensure delivery of quality samples for testing.

Initiative

TB CARE I installed a rapid diagnostic machine (GeneXpert) in Rasht's TB Center in February 2013, and launched a comprehensive multi drug resistant tuberculosis (MDR-TB) campaign in the region. Before then, residents had no access to MDR-TB treatment or diagnostics, and those diagnosed with MDR-TB had to either wait for treatment or move to one of only 34 districts in the country where treatment was available. To address this critical need, USAID procured enough second line drugs in July 2013 to serve 50 patients, and additional drugs for 50 more patients to arrive in 2014.

Results

The introduction of GeneXpert in Rasht has been enormously successful. This breakthrough technology identifies resistance to Rifampicine, a marker for MDR-TB, in just two hours. Between March and August 2013, 163 patients were tested. TB was detected in 37 patients, including 16 patients resistant to Rifampicine. These were the very first MDR-TB patients ever detected and registered in the Rasht area. Beginning in August 2013, 12 patients started MDR-TB treatment at the Republican Hospital in Macheton. They will undergo the initial intensive phase in the hospital and later be released to ambulatory care. The Rasht program has the capacity to enroll as many as 38 additional patients this year using second line drugs procured with USAID support.

To improve diagnostics, USAID, in cooperation with TB and primary health care services and local governments, have set up an effective, regular sputum transportation system in the Rasht area. The value of an effective TB treatment in this remote area of Tajikistan is hard to overstate. The proper and timely diagnosis will save the lives of patients, and prevent further transmission of this infectious disease.



FIRST PERSON

Fighting Stigma and Saving Lives

USAID helps to reduce stigma in remote communities by raising awareness on proper and timely treatment of Tuberculosis



Zulaikho Shoimova with TB CARE I consultant Tatyana Toichkina

"You can't imagine how happy I am. I am on treatment, I feel good, and I have a baby boy who we named Murod, which in Tajik means "achieving a goal". For my son, I will continue the treatment and become healthy again. I am grateful to all who helped me in reaching my goals."

- Zulaikho Shoimova, TB patient

Tajikistan has a high burden of tuberculosis (TB) and multi-drug resistant forms of TB (MDR-TB) are a major problem. Treatment for MDR-TB is more costly and requires extensive chemotherapy for up to two years. Tajikistan started gradually rolling out MDR-TB treatment to more districts as the necessary drugs became available. Currently 34 districts out of 67 (51%) provide access to MDR-TB treatment.

In July 2012, with the support of USAID TB CARE I project, an MDR-TB program was initiated in Dangara district. The program provides rapid diagnostics, enrollment in timely and adequate treatment, and patient support incentives such as food, fuel and transport costs, to increase treatment adherence. An important element of the program is education of community health workers and activists to counsel patients on TB.

While the main focus of the program has been on building the capacity of local health providers to ensure timely detection and adequate treatment, patient education proved to be just as important. When Zulaikho Shoimova was pregnant with her first baby, she was shocked to find out she had MDR-TB. Due to the lack of reliable information on the prevention and treatment of TB infection in remote communities, she felt pressured by her family members not to start treatment, led by misconceptions and fears that it would damage the unborn child. However, after a series of counseling sessions given to Zulaikho and her family members by USAID project staff and community health workers, she realized that properly administered treatment would be safe for both her and her baby.

Following the initial counseling, Zulaikho started on MDR-TB treatment, and in June 2013 she gave birth to a healthy baby boy. Zulaikho is a happy mother who was supported through the course of her treatment by local health workers and the community, and she is thankful to those who helped her withstand social pressures, give her the necessary information, and ultimately to take the critical decision to save both her and her baby's lives.

Health System Strengthening (HSS)

In **HSS**, TB CARE I supported training of community activists, religious leaders and volunteers from project pilot sites, with a focus on their preparedness to help TB and PHC staff provide TB care and treatment in ambulatory care settings. In APA3, within this component, TB CARE I sponsored participation of NTP specialists in international trainings, courses and workshops. At the national level, TB CARE I promoted country exchange of experiences and knowledge on GeneXpert MTB/RIF, PMDT and outpatient support through thematic working meetings, national workshops involving key ministries, donors, WHO and national and international NGOs (QHCP and Project HOPE) and other partners involved in TB control.

Key Results

- According to the activity plan, 1010 medical workers were to be trained. A total of 1008 healthcare workers at all levels were trained using TB CARE funds (Table 2).
- TB CARE I supported supportive supervision and monitoring visits in technical areas such as Laboratory (GeneXpert MTB/RIF), TB-IC, PMDT, Outpatient Care and Psychosocial Support.
- TB CARE I sponsored participation of six NTP specialists in trainings on MDR-TB and Childhood TB, conducted by the WHO Collaborating Centre for Research and Training in Management in Riga, Latvia.
- With TB CARE I support MOH specialists, Oblast level SES representatives and engineer from the Republican TB Hospital were trained on TB-IC in advanced international training courses ("Nosocomial TB Transmission Risk Reduction" and "Engineering Aspects of Nosocomial TB Transmission Risk Reduction)".
- NTP clinicians received support from TB CARE I to take a three-month MDR-TB online course facilitated by the National TB Institute of the Russian Academy of Science.
- Five MOH/NTP specialists participated in the Regional Workshop on Monitoring and Evaluation in Almaty, Kazakhstan.

Table 2. People trained using TB CARE funds

Technical Area	Males	Females	Total	
Universal Access	132	83	215	
Laboratory	143	54	197	
TB-IC	55	9	64	
PMDT	188	66	254	
HSS	172	69	241	
M&E	16	21	37	
Total	706	302	1008	

Challenges

1. Supervisory visits on outpatient care and psychosocial support was postponed until July due to the late approval of the "Protocol on Strengthening TB/MDR-TB Patients' Outpatient Care and Provision of Psychosocial Support of Patients in TB CARE I Project Sites."

Next Steps

1. To continue supporting training activities for health professionals in APA4.

Photo 13. Training on interpersonal communication skills; Rasht district, March 18-19, 2013



Photo 14. NTP specialists trained during the international course on MDR-TB; Riga, May 13-24, 2013



Monitoring & Evaluation, Surveillance and OR

In **M&E**, TB CARE I supported revision of definitions and recording and reporting forms following the surveillance assessment, as well as provided technical assistance on strengthening capacities of NTP professionals to conduct operational research.

Key Results

- Evaluation of the reporting and recording (R&R) data forms, including the current TB register and existing electronic surveillance system, was done during the assessment of the TB surveillance system in general and prison TB services by TB CARE I consultants in February 2013. Technical needs for upgrading to ensure effective information management was identified and presented during the briefing with the NTP and partner organizations.
- TB CARE I facilitated the revision of current recording and reporting forms and definitions in accordance with the new WHO definitions and reporting framework. The draft of the Instruction on Data Collection, based on revised R&R forms, will be finalized and submitted to NTP in November 2013.
- Operational research agenda for NTP was developed with TB CARE I support. The next steps on OR were identified and discussed with NTP.

Challenges

 Revision of the current recording and reporting forms and definitions was canceled due to the fact that R&R forms were revised last year by GFATM UNDP. The WHO NTP review mission (conducted in July 2013) encouraged revising definitions and R&R forms to take into account the latest WHO recommendations. TB CARE I facilitated this process through TWG meetings with key NTP specialists and partners. The process was facilitated under activity 4.1.2.

Next Steps

- To complete revision of the current recording and reporting forms and definitions by the end of October 2013. To develop the draft instruction on data collection based on revised R&R forms by mid-November 2013.
- 2. To train oblast and district coordinators (laboratory, drug management and clinical specialists) on revised R&R forms.
- 3. To provide supervisory visits and on-the-job training on revised R&R forms in TB CARE I pilots.
- 4. To conduct cohort analysis workshops to improve data collection and data analysis in TB CARE I pilots.
- 5. To conduct operational research on reasons for treatment default.

Photo 15. National workshop on operational research agenda; Dushanbe, August 11-12, 2013



Photo 16. TWG on revision of definitions and R&R form; Dushanbe, August 13, 2013

